Quick Start Guide

Turbo HD Series DVR

DS-72xxHGHI-SH
DS-73xxHQHI-SH
DS-90xxHQHI-SH

NOTE: For more information refer to the complete User Manual located on the CD-ROM

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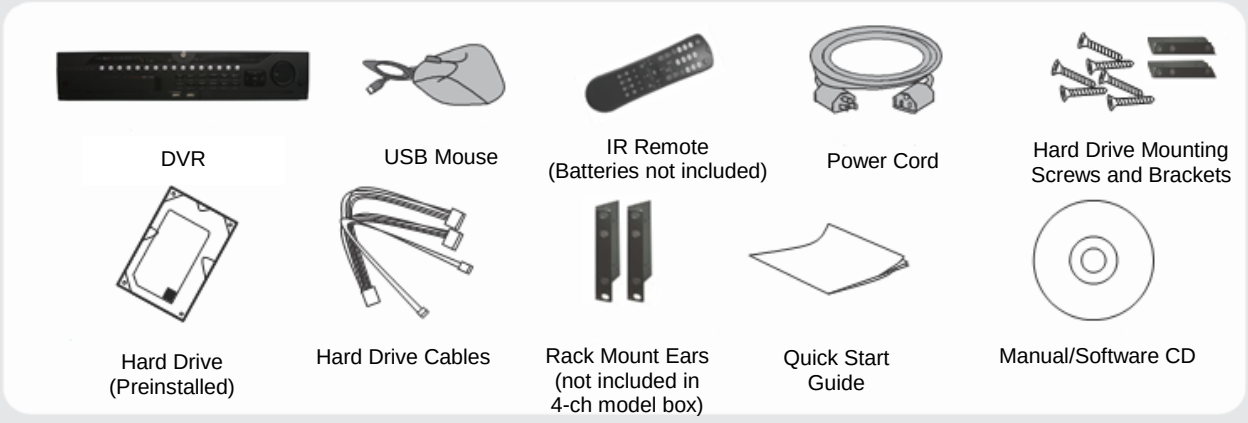
10. Playing Back Recorded Video
11. Making a Backup

Connect a monitor and a USB mouse (supplied) to the DVR for configuration purposes.

1. OVERVIEW

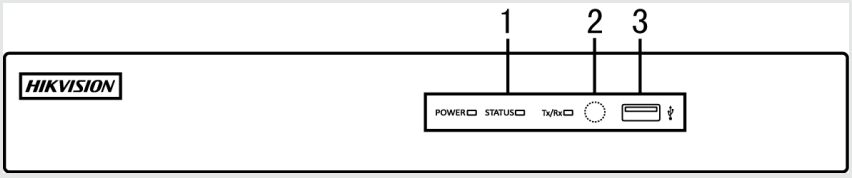
THE BOX CONTAINS:

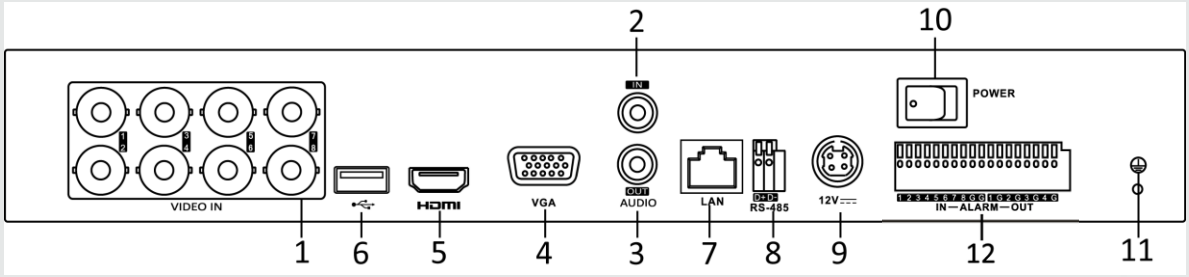


This Guide is compiled for the latest firmware versions. Upgrade the DVR firmware to the latest version before proceeding. Also note, the CD may contain outdated manuals and software

For latest firmware, manuals, and software downloads visit: www.hikvision.com/en/us/download.asp

DS-72xxHGHI-SH





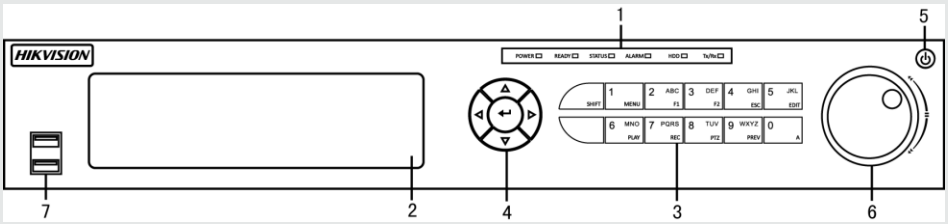
REAR VIEW

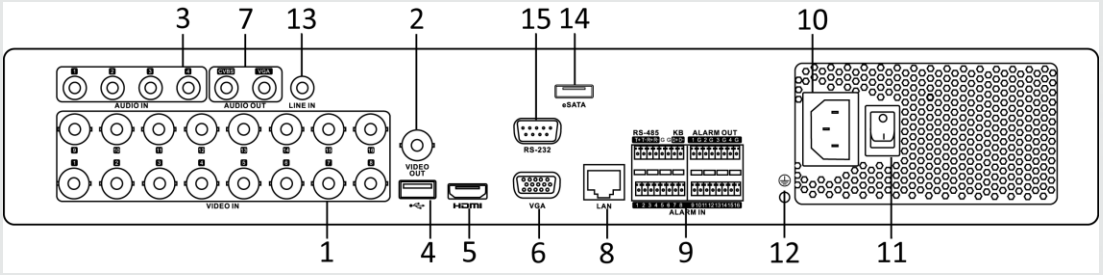
1. Video In
2. Audio In
3. Audio Out
4. VGA output
5. HDMI output
6. USB Interface
7. Network Interface (RJ45)
8. RS-485 Interface
9. Power Supply Port
10. Power Switch
11. Grounding Screw
12. Alarm In/Out

FRONT VIEW

1. Power, Status and Tx/Rx indicators
2. IR Receiver
3. USB Interface

DS-73xxHQHI-SH





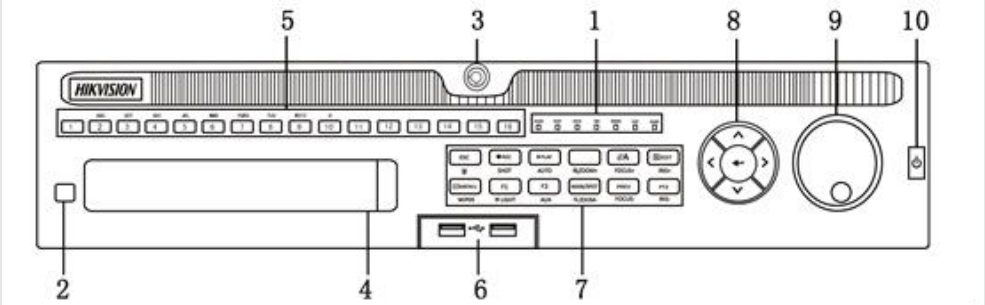
REAR VIEW

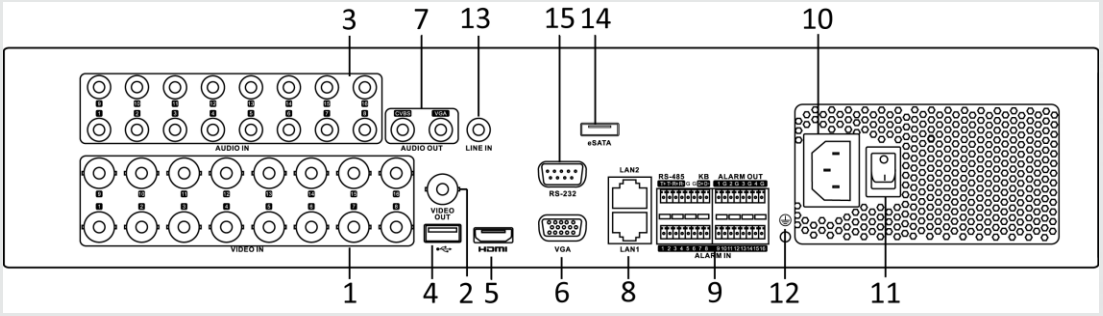
1. Video In
2. Video Out
3. Audio In
4. USB Interface
5. HDMI output
6. VGA output
7. Audio Out
8. Network Interface
9. RS-485 Interface
10. Power Supply
11. Power Switch
12. GND
13. Line In
14. eSATA
15. RS-232 Interface

FRONT VIEW

1. Power, Ready, Status, Alarm, HDD and Tx/Rx Indicators
2. DVD-R/W
3. Composite Keys
4. Direction/Enter Keys
5. Power
6. Jog Shuttle Control
7. USB Interface
8. IR Receiver

DS-90xxHQHI-SH





REAR VIEW

1. Video In
2. Video Out
3. Audio In
4. USB Interface
5. HDMI output
6. VGA output
7. Audio Out
8. Network Interface
9. RS-485 Interface
10. Power Supply
11. Power Switch
12. GND
13. Line In
14. eSATA
15. RS-232 Interface

FRONT VIEW

1. Power, Ready, Status, Alarm, HDD and Tx/Rx Indicators
2. IR Receiver
3. Front Panel Lock
4. DVD-R/W
5. Alphanumeric Buttons
6. USB Interfaces
7. Function Keys
8. Direction/Enter Keys
9. JOG SHUTTLE Control
10. Power

2. Device Activation

To ensure the highest level of protection, Hikvision requires users to create a new password for the **admin** account upon first login to a device. The system will check the password strength; "Risky" passwords will not be accepted.

Device Firmware with Secure Activation

Device Type	Model Number	Firmware Version
Value Series IP Camera	DS-2CD2xxx	V5.3.0
Smart Series IP Camera	DS-2CD4xxx	V5.3.0
NVR/Hybrid	DS-9016HWI-ST DS-96xxNI-ST DS-7716NI-SP/16	V3.1.5
Plug-n-Play NVR	DS-76xxNI-EI(E2)/P	V3.1.0
Turbo DVR	DS-72xxHGHI-SH DS-73xxHQHI-SH	V3.1.6
Super NVR	DS-96128NI-E24/H DS-96256NI-E24/H	TBD

NOTE: DVRs/NVRs starting with the latest firmware (see chart, above) WILL NO LONGER HAVE A DEFAULT PASSWORD. The user must activate the DVR/NVR by creating a password for the **admin** account in one of four ways:

- **Local Activation**

1. Power on the DVR/NVR.

   - A message will appear, prompting user to activate the device.
   - The username field will be greyed-out with the username set to **admin**.

2. Type in a password of your choosing (see "Password Strength Levels" table for guidelines).

   - The password strength will be displayed, accompanied by a color indicator*:

     - Level 0–*Risky* (red indicator): Not acceptable
     - Level 1–*Weak* (red indicator): Acceptable
     - Level 2–*Fair* (orange indicator): Acceptable
     - Level 3–*Strong* (blue indicator): Acceptable

   - Activation will not be allowed unless the password is of acceptable strength.

* **NOTE:** The strength level indicator colors can vary by activation process, model number, and device type.

3. Retype the password into the “Confirm Password” field.

4. After an acceptable password has been created, a confirmation message will appear on the screen.

5. Press the **OK** button to proceed.

- **SADP Software Activation (v2.2.3.5 or higher)**

1. Launch the new version of the SADP software (v2.2.3.5).

   - The software will display all Hikvision devices on the network.
   - A new field called “Security” will be displayed

2. If the DVR/NVR is “Inactive,” highlight the DVR/NVR and enter a new password into the “New Password” field on the bottom right of the screen.

   - The password strength will be displayed, accompanied by a color indicator:

     - Level 0–*Risky* (no indicator): Not acceptable
     - Level 1–*Weak* (pink indicator): Acceptable
     - Level 2–*Medium* (yellow indicator): Acceptable
     - Level 3–*Strong* (green indicator): Acceptable

   - Bar length indicates strength level.

   - Activation will not be allowed unless the password is of acceptable strength. If the password is unacceptable strength (“Risky”), a warning box will be displayed.

3. Retype the password into the “Confirm Password” field.

4. After the password has been entered and confirmed, press the **OK** button to display the pop-up confirmation window.

5. Press the “X” in the top right corner of the pop-up confirmation window to dismiss the window.

- **iVMS-4200 Windows Client Software (v2.3.1.3 or higher) Activation**

  1. Launch the iVMS-4200 software.

  2. Go to **Control Panel→Device Management**.

     - On the bottom of the screen in the Online Devices section the screen will display all Hikvision devices on the network.

     - A new field called “Security” will be displayed.

  3. If the DVR/NVR is “Inactive,” highlight the DVR/NVR and press the **Activate** button to display the “Activation” window.

  4. Enter a new password into the “Password” field.

     - The password strength will be displayed, accompanied by a color indicator:
       - Level 0–*Risky* (no indicator): Not acceptable
       - Level 1–*Weak* (pink indicator): Acceptable
       - Level 2–*Medium* (yellow indicator): Acceptable
       - Level 3–*Strong* (green indicator): Acceptable

     - Bar length indicates strength level.

     - Activation will be allowed if the password is of acceptable strength.

     - If the password is of unacceptable strength (“Risky”), a warning box will be displayed explaining the requirements for an acceptable password.

  5. Retype the password into the “Confirm Password” field.

  6. After the password has been entered and confirmed, press the **OK** button.

     - The DVR’s/NVR’s status will change to “Active.”

- **Web Interface Activation**

1. In a Web browser, type the DVR's/NVR's IP address and press **Enter**.

   - The Activation Window will appear instead of the login page.

2. Enter a new password into the "Password" field.

   - The password strength will be displayed, accompanied by a color indicator:
     - Level 0–*Risky* (no indicator): Not acceptable
     - Level 1–*Weak* (pink indicator): Acceptable
     - Level 2–*Medium* (yellow indicator): Acceptable
     - Level 3–*Strong* (green indicator): Acceptable

   - Bar length indicates strength level.

   - Activation will be allowed if the password is of acceptable strength. A white checkmark will appear in a green circle to the right of the password field.

   - If the password is unacceptable strength ("Risky", a white X will appear in a red circle to the right of the password field and a warning dialog box will be displayed explaining the requirements for an acceptable password.

3. Press the **OK** button.

   - Upon successful activation, user will be logged in to the DVR's/NVR's live view page.

Password Strength Levels

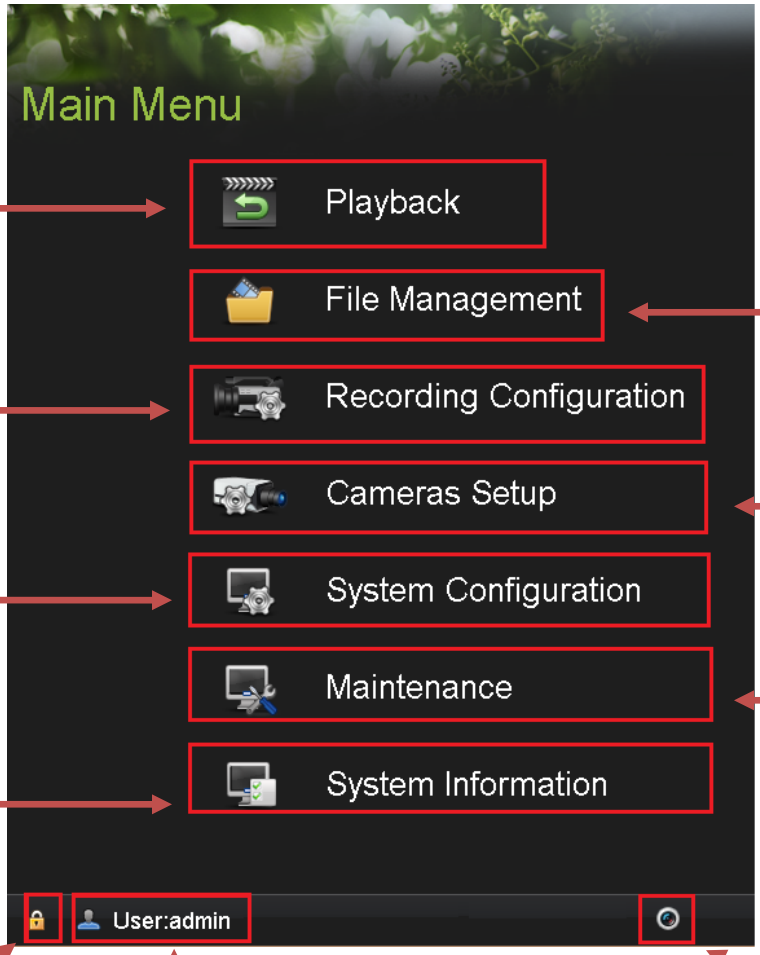
STRENGTH LEVEL	DESCRIPTION
Level 0 (Risky) NVRs ***will not*** accept a Level 0 password	Password length is fewer than eight characters, contains only one type of character, is the same as the user name, and/or is the mirror writing of the user name. This type of password ***will not*** be accepted.
Level 1 (Weak) NVRs ***will*** accept a Level 1 password	Password contains two kinds of characters. The combination is number + lowercase letter or number + uppercase letter, and the password length is at least eight characters. This type of password ***will*** be accepted.
Level 2 (Medium/Fair) NVRs ***will*** accept a Level 2 password	Password contains two types of characters. The combination is **neither** number + lowercase letter *nor* number + uppercase letter, and the password length is at least eight characters. This type of password ***will*** be accepted.
Level 3 (Strong) NVRs ***will*** accept a Level 3 password	Password contains more than three types of characters, and the password length is at least eight characters. This type of password ***will*** be accepted.

NOTE: Types of characters are lowercase letters, uppercase letters, numbers, and special characters. Only ASCII characters are allowed.

3. MAIN MENU LAYOUT

DEFAULT USERNAME: admin

(Please note, the username and password are case sensitive)



View recorded video and make backup

Setup recording type, motion detection, resolution and frame rate, and more

Set up date/time, network, screen settings, user accounts, and more

Model number, firmware version, camera status, HDD status and more

Search for snapshots, make large backups

Add cameras, change brightness, contrast… camera name, PTZ, privacy mask

Upgrade firmware, factory default, system logs, import/export settings

Log Out and Lock the DVR

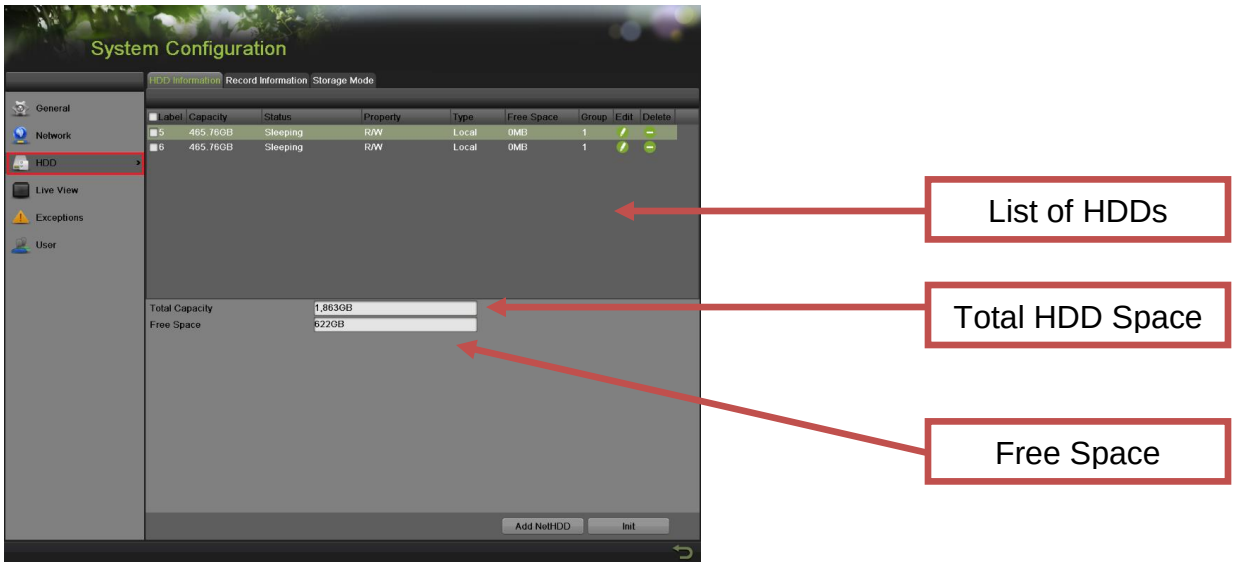
Displays the current logged in

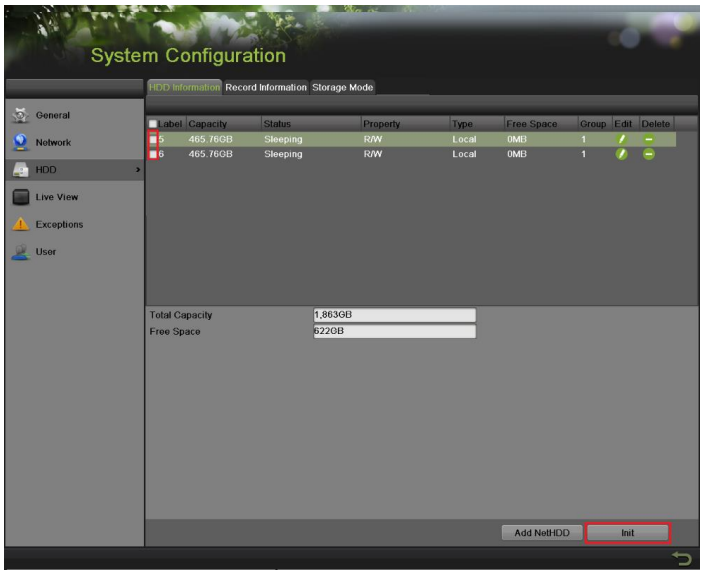
Exit MENU to Live View

4. FORMATTING THE HARD DRIVE

If the Hard Drive (HDD) is not formatted (initialized), the DVR will begin to beep. The beeping will continue until the HDD is formatted. To format the HDD, go to:

"MENU" > "SYSTEM CONFIGURATION" > "HDD"
Select the HDDs that need to be formatted and press "INIT"





NOTE:

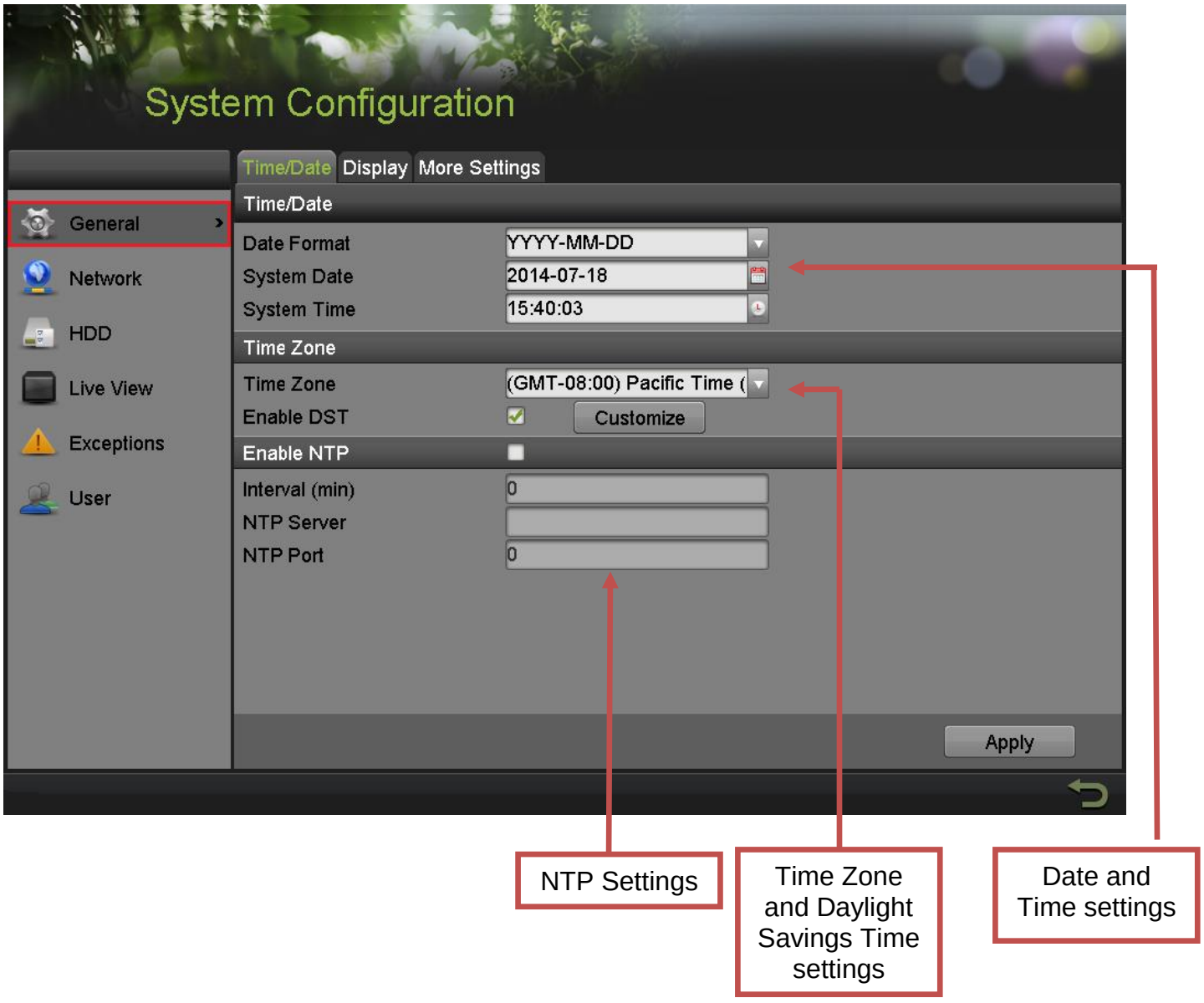
Units purchased with HDDs come with HDDs already formatted.

Formatting the HDDs also erases the recorded video from the HDDs (this does not affect the settings).

5. DATE AND TIME SETUP

To set up the Time and Date on a DVR, please go to:

“MENU” > “SYSTEM CONFIGURATION” > “GENERAL”



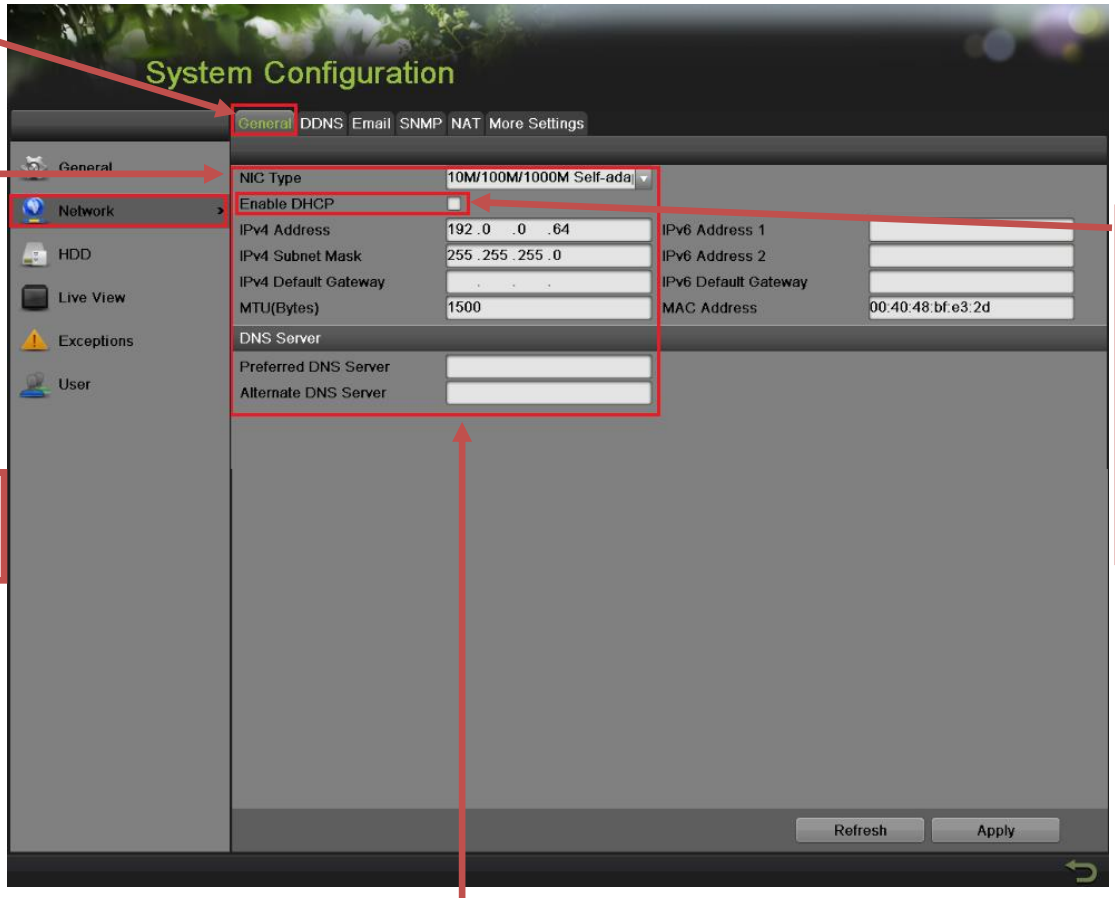
6. SETTING UP NETWORK ACCESS

Networking a DVR requires 3 steps:

1. Assign an **IP address, Default Gateway, Subnet Mask, and a DNS server (NOTE: DNS, not DDNS)** to the DVR
2. Forward the appropriate ports on the router **(Port Forwarding)**.
3. Register **DDNS** (DDNS registration is required only if the public IP address is Dynamic).

To assign an **IP ADDRESS**, go to **"MENU">"SYSTEM CONFIGURATION">"NETWORK"**

General



Select NIC

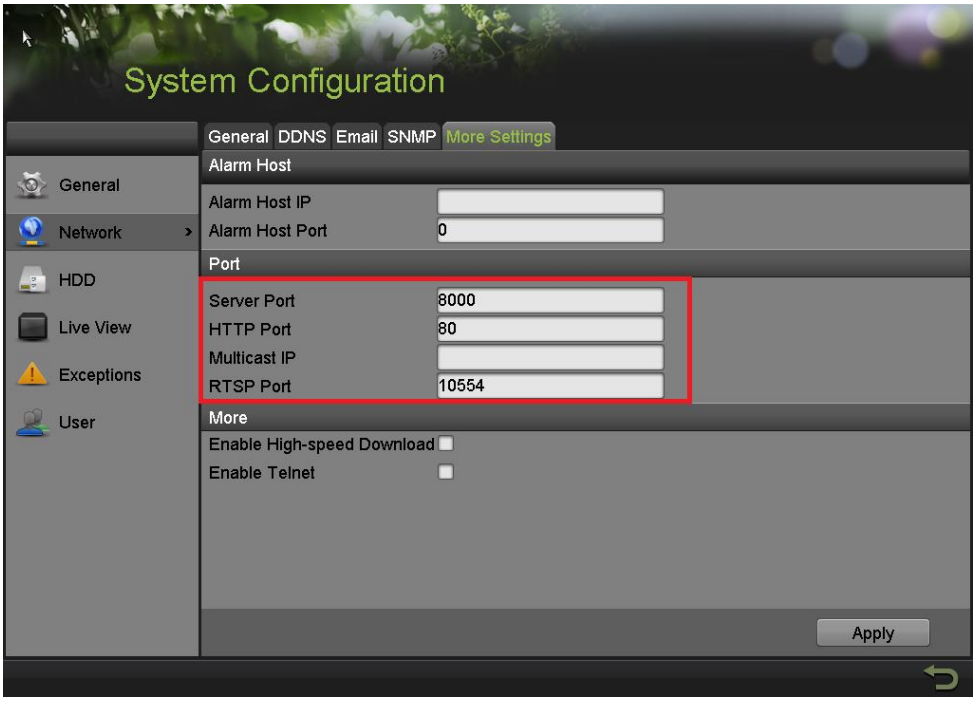
NETWORK Sub Menu

Enable DHCP
With DHCP enabled, the router will assign an IP address to the DVR

IP CONFIGURATION
Please note that the DVR's default IP Address is 192.0.0.64

After assigning the IP information, click on the **“MORE SETTINGS”** tab.

The **“MORE SETTINGS”** tab contains the ports that need to be forwarded for remote access.



The **SERVER PORT** is responsible for the **MOBILE APP** and **CLIENT SOFTWARE** log-in.
The **HTTP PORT** is responsible for **WEB BROWSER** log-in.
The **RTSP PORT** is responsible for **VIDEO/AUDIO STREAMING**.

The **HTTP PORT** and the **SERVER PORT** can be changed if desired, in order to avoid conflicts with the **ISP** or the existing network configuration.

Port Forwarding

After assigning the IP information to the DVR, connect a computer to the same router that the DVR is connected to (wired connection is recommended, to avoid complications). Log into the **ROUTER**, and proceed with **PORT FORWARDING**.

For **PORT FORWARDING** assistance contact the Internet Service Provider **(ISP)** or the router manufacturer. Also refer to www.portforward.com for port forwarding step-by-step instructions. Please be aware that Hikvision USA is not associated with www.portforward.com and not responsible for any activity between the user and www.portforward.com. Please refrain from downloading any software from the abovementioned website.

Proceed to the **"ROUTERS"** section for step-by-step instructions.

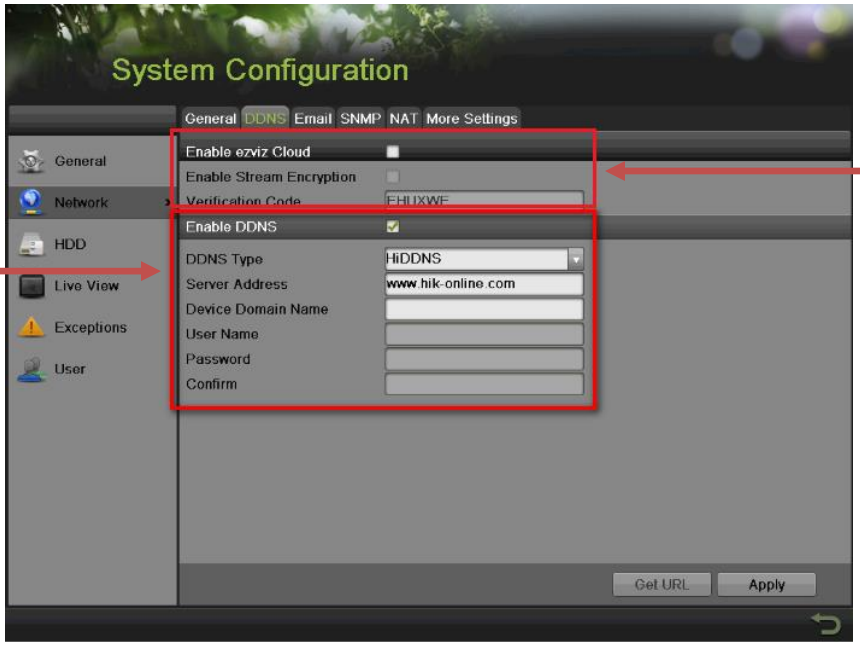
DDNS Setup

DDNS registration has been made more user friendly and takes only a few seconds to complete. Legacy units require user registration on www.hik-online.com. This step is no longer needed.

Click on the DDNS tab.

In the **DDNS** tab:

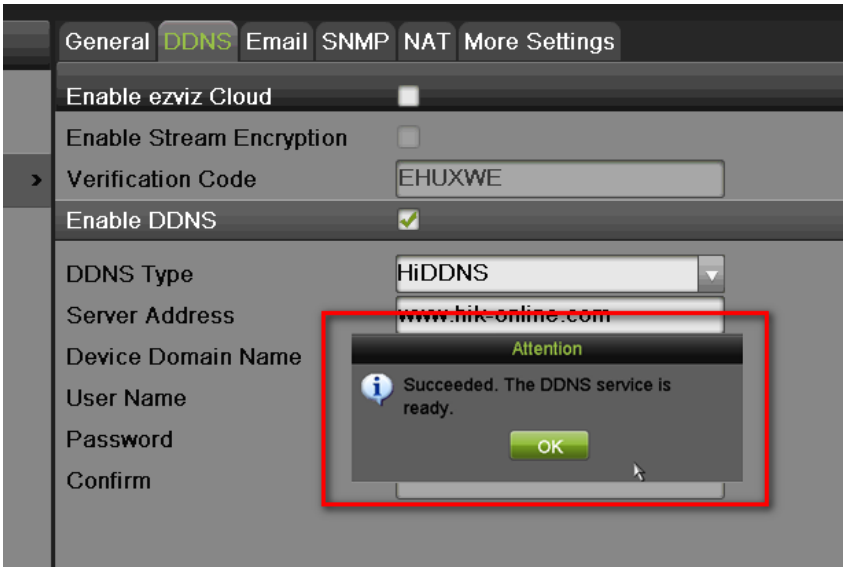
a. Enable DDNS
b. Change the **DDNS TYPE** to **HiDDNS** (in some cases **HkDDNS**)
c. Make sure that the **SERVER ADDRESS** is set to www.hik-online.com
d. Create a **DEVICE DOMAIN NAME** (the domain name CANNOT contain **spaces, special characters and/or upper case letters**



Enable DDNS and create a DOMAIN NAME

EZVIZ is used for a connection through a secure server. In this case port forwarding is not required. **Contact Technical Support for detailed information**

After the changes have been made, press **"APPLY."** A **"SUCCESS"** message will pop up.

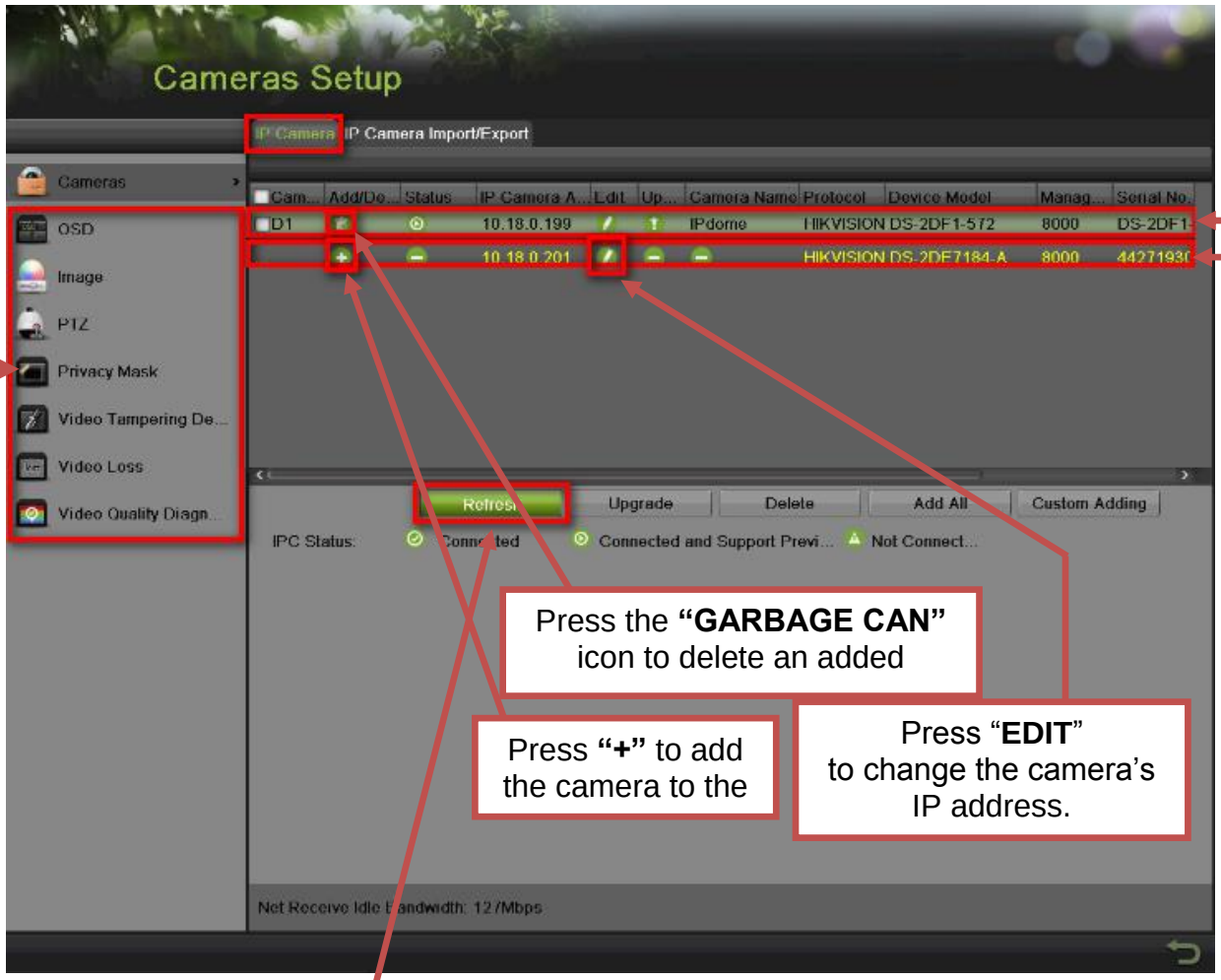


If the Domain Name does not meet the acceptable criteria, and/or is already registered, an error message will appear (the domain name cannot contain upper case characters, begin with a number, spaces, special characters…).

7. ADDING IP CAMERAS

Go to:

“MENU”>”CAMERAS SETUP”



Press the **“GARBAGE CAN”** icon to delete an added

Press **“+”** to add the camera to the

Press “**EDIT**” to change the camera’s IP address.

Please refer to the manual for detailed information

“REFRESH” to find cameras connected to the network

List of detected cameras

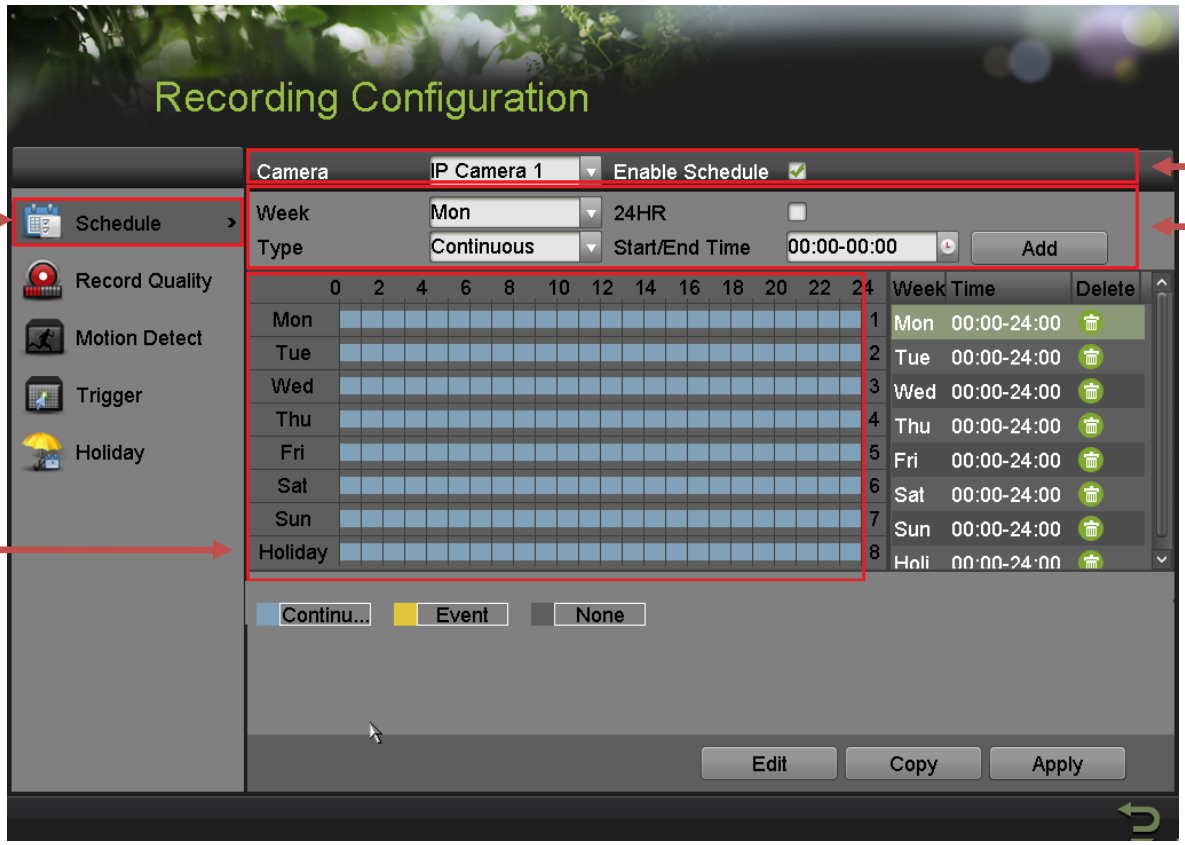
List of added cameras **(WHITE)**

NOTE: To change the CAMERA NAME go to **OSD**

8. SETTING UP RECORDING

Hikvision DVRs are defaulted to **CONTINUOUS RECORDING**.

Please go to: **“MENU”>”RECORDING CONFIGURATION”**



Set Up Recording Schedule (Continuous/Motion)

The color of the calendar is what constitutes the recording schedule:

1. **Blue=Continuous**
2. **Yellow=Event (Motion/Alarm)**

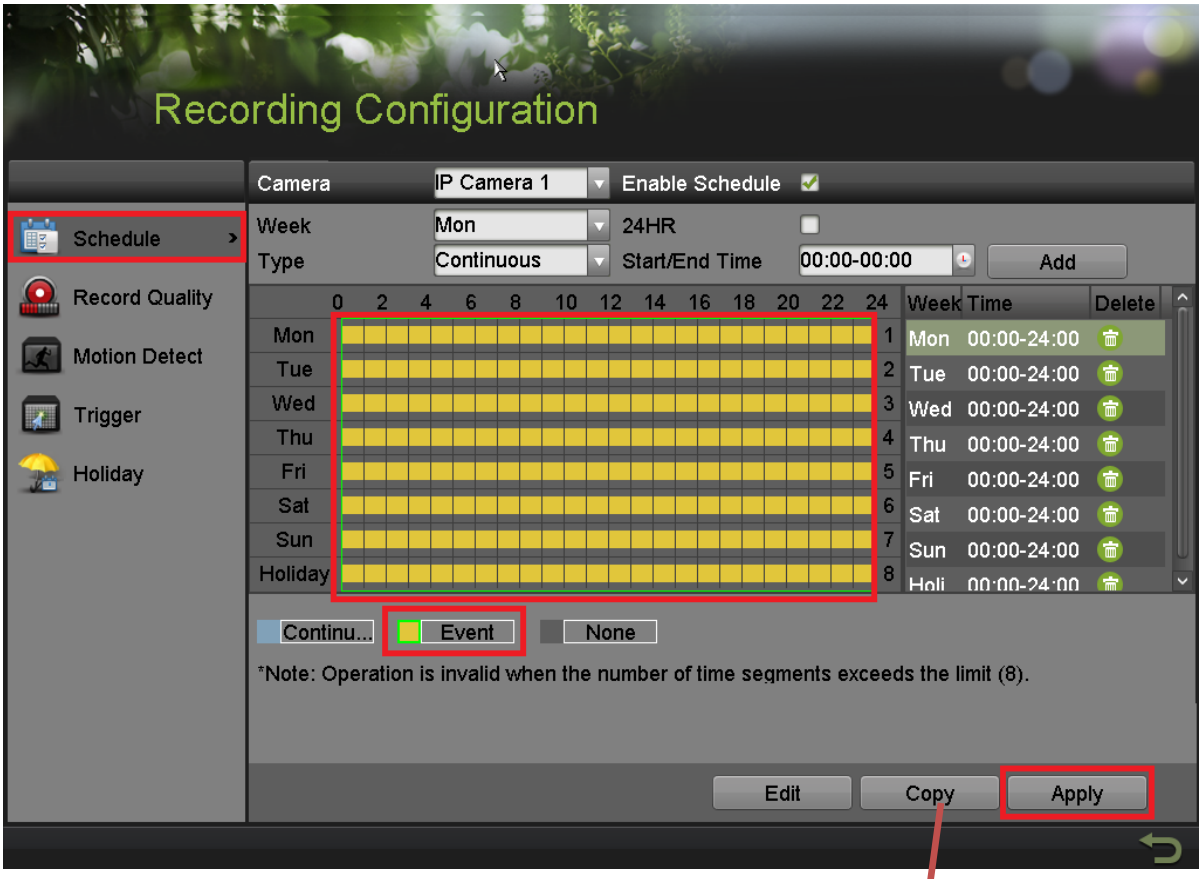
This field is used to customize a part of the existing schedule **This can be ignored if setting up motion only recording**

Select the camera. Enable/Disable the schedule

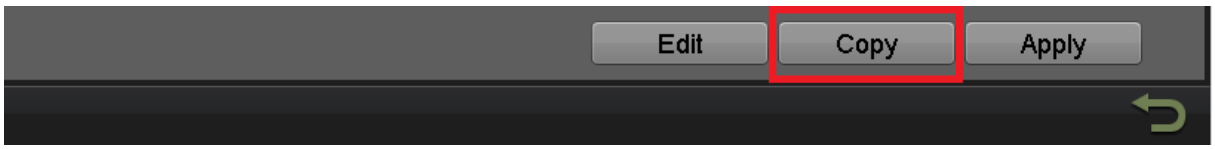
NOTE: If **ENABLE SCHEDULE** is not checked, then that camera would not be recording

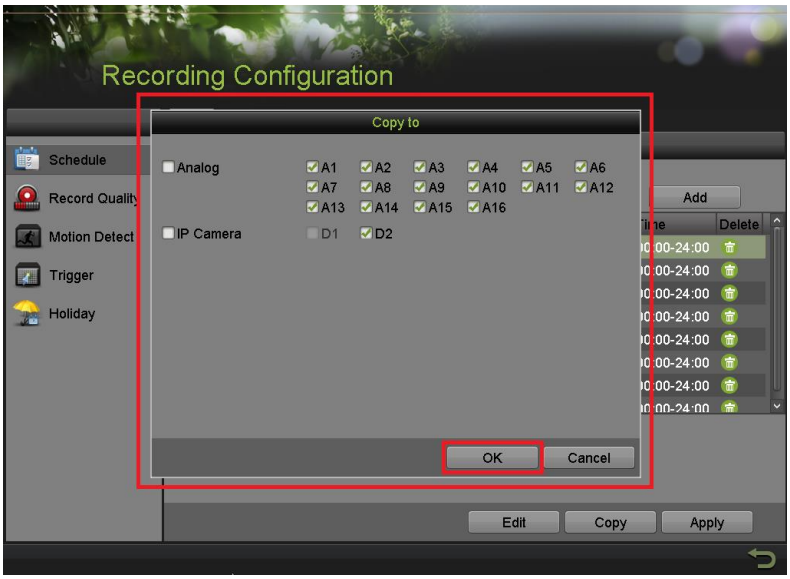
To set the DVR to **MOTION RECORDING**, go to:

1. “MENU”>”RECORDING CONFIGURATION”
2. Click on the **“EVENT”** under the calendar (yellow). After this the mouse cursor will change to a **WAND**.
3. Select the calendar, and it will turn **YELLOW** (just like on a computer, click on the top-left corner of the calendar and drag to the bottom-right corner).
4. Press **APPLY.**

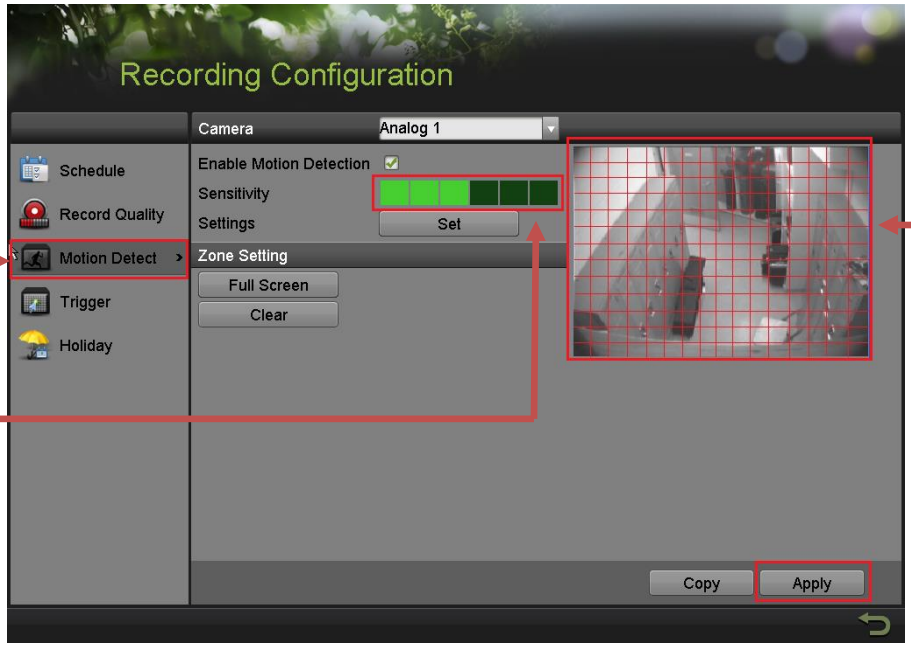


5. Press **COPY** to copy the new schedule to the remaining cameras.





After the recording has been set to **"EVENT RECORDING,"** go to **"MOTION DETECT"** to set the motion detection for every camera. In this step, the **"COPY"** option is available only for analog cameras, IP cameras need to be configured individually.



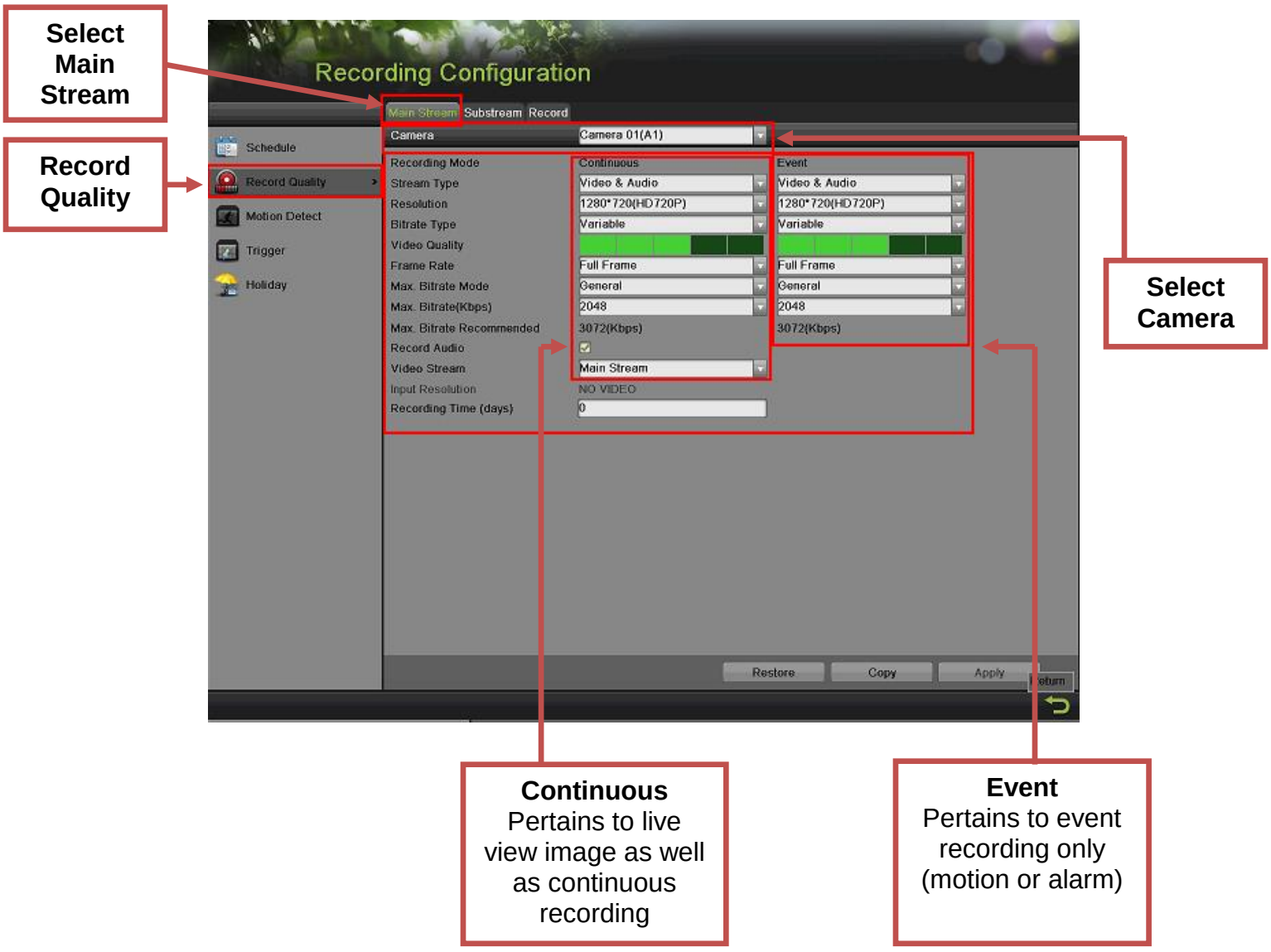
Motion Detection Setup

Motion Sensitivity
The number of bright green squares indicates the sensitivity level (in this photo, the sensitivity is set to 3)

Motion Area
The grid indicates the area where motion will be detected

To set the recording **RESOLUTION/FRAMERATE/BITRATE** settings, please go to:

“RECORD QUALITY” in the **“RECORDING CONFIGURATION”** submenu.



Stream Type enables/disables audio streaming from the camera (if the camera does not have audio capabilities, then the **Stream Type** will only have **Video** option).

Resolution allows setting of the recording resolution.

Bitrate Type allows the DVR to save HDD space when set to **Variable** (available choices: **Variable** and **Constant**)

Video Quality adjusts picture clarity (**medium setting/3 green squares)** is recommended. Medium setting is the balance between good picture and saving HDD space).

Frame Rate allows setting of the recording frame rate (**12-15 fps** is recommended to save HDD space and not to have a “choppy” image)

Max Bitrate Mode allows choosing between preset bitrate values and customizing the values (**General** setting is recommended)

Max Bitrate (KBPS) is the chosen bitrate for streaming the video.

Max Bitrate Recommended is the DVR’s recommended bitrate according to the parameters set above.

Record Audio allows turning the audio recording on or off (for IPC, this option is only available if the camera has a microphone connected to it).

Video Stream allows changing the recording stream between **Main Stream** and **Sub Stream** (this step requires a restart).

Input Resolution shows the resolution of video stream from camera.

Recording Time (days) shows how much time left for recording, based on current HDD volume and recording parameters.

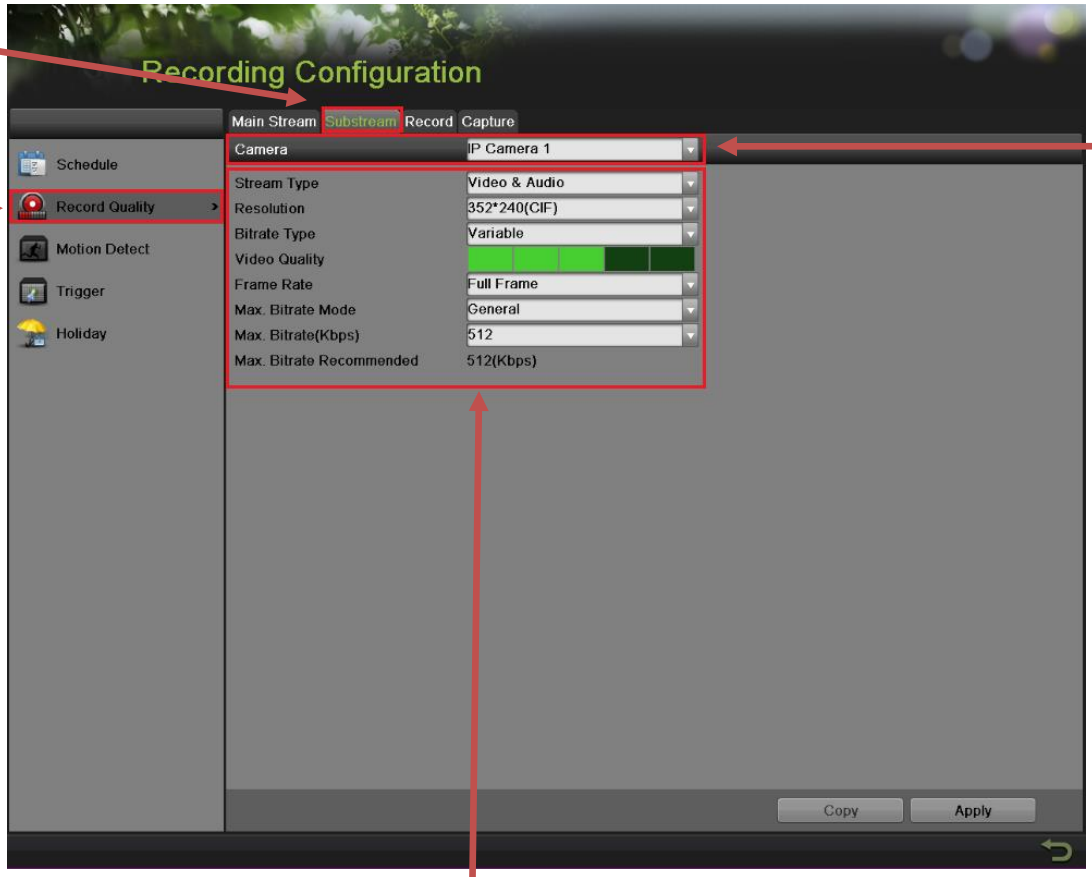
Please refer to the table below for recommended recording parameters

Resolution	Video Quality	Frame Rate (FPS)	Bitrate (KBPS)
320x240 (QVGA)	Medium (3 squares)	12-15	207
352x240 (CIF)	Medium (3 squares)	12-15	384
640x480 (VGA)	Medium (3 squares)	12-15	768
704x480 (4CIF)	Medium (3 squares)	12-15	1024
1280x720 (720P)	Medium (3 squares)	12-15	2048
1280x960 (960P)	Medium (3 squares)	12-15	2048
1600x1200 (2MP)	Medium (3 squares)	12-15	2560
1920x1080 (1080P)	Medium (3 squares)	12-15	3072

Last step in the recording setup is setting up the **Sub Stream**.
The **Sub Stream** is used for streaming on mobile devices, as well as displaying multiple cameras on the local output.

Select Sub Stream

Record Quality



Unlike Main Stream, **Sub Stream** can only go up to **4CIF**

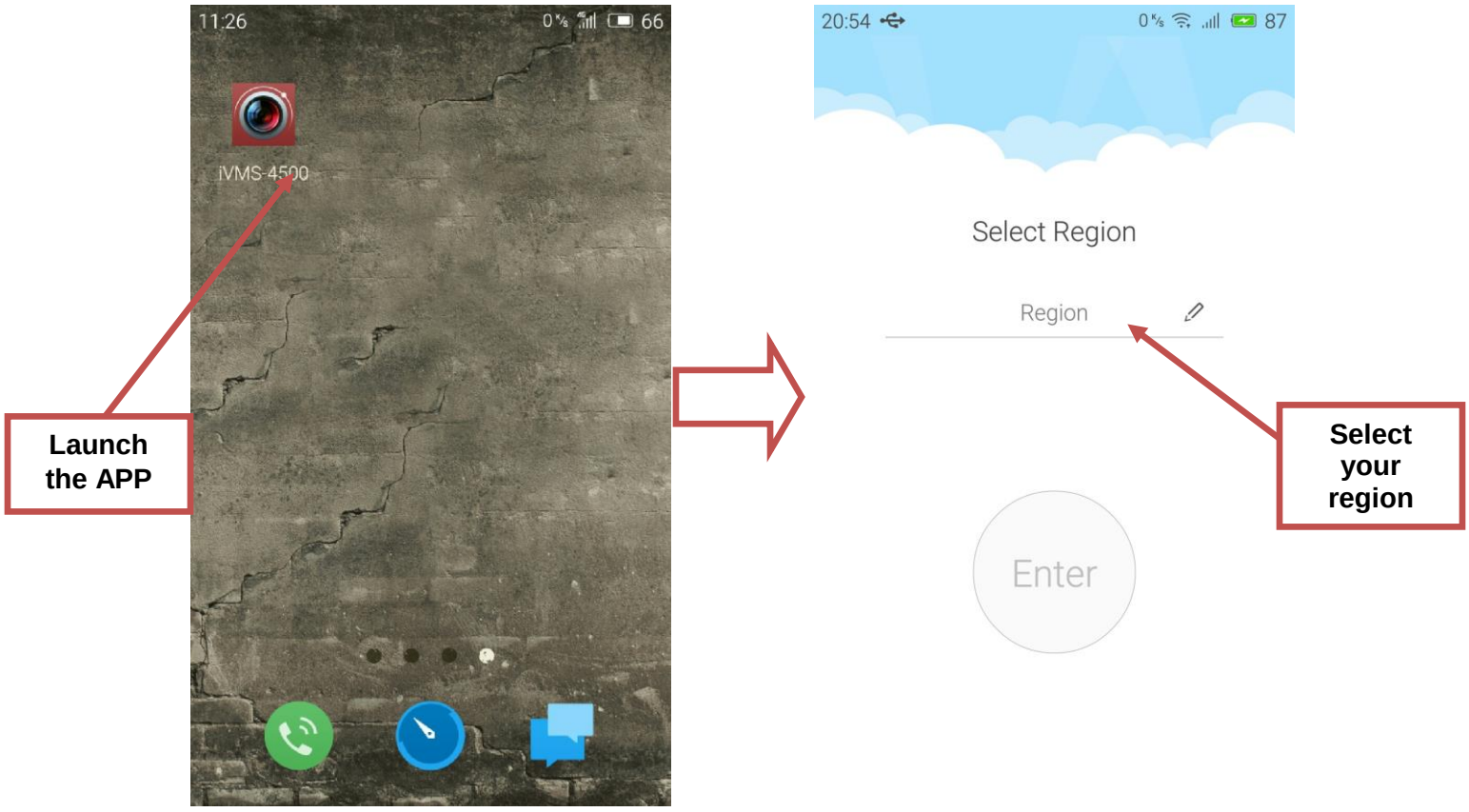
Select Camera

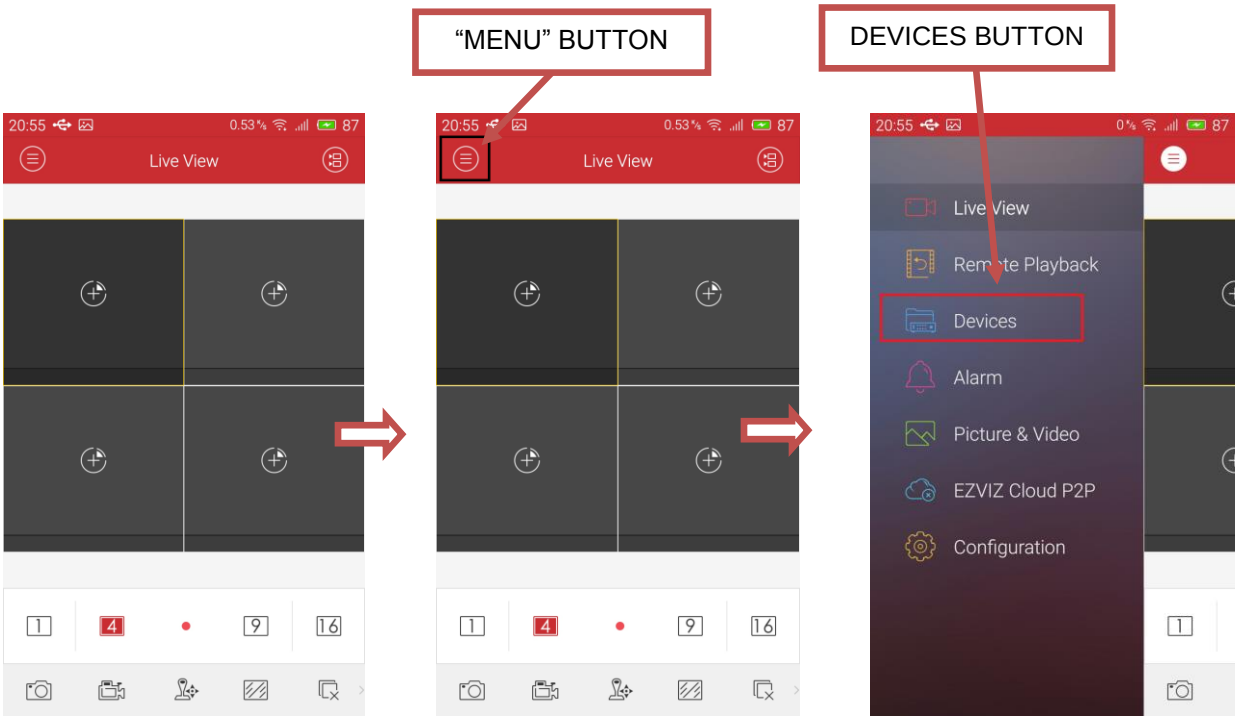
NOTE: If the upload speed is not sufficient, consider lowering the frame rate/bitrate/resolution for more fluent mobile app viewing.

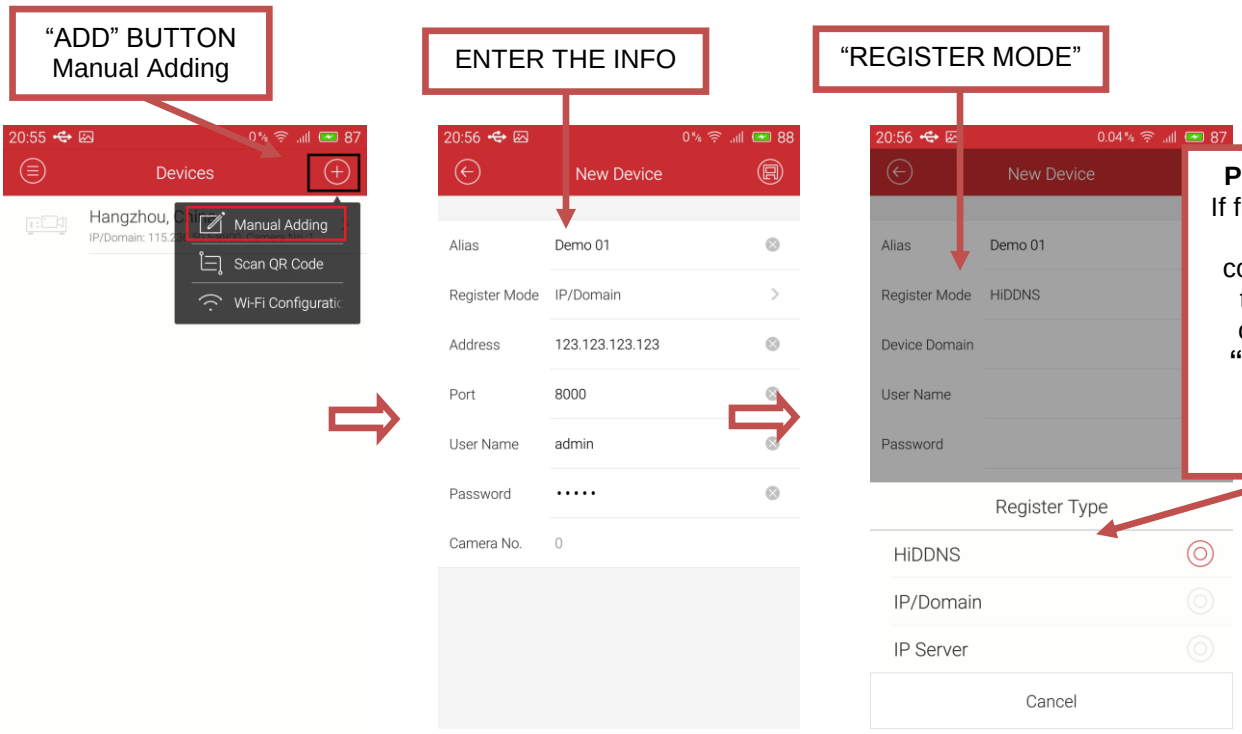
9. CONFIGURING THE MOBILE APP

All HikVision DVRs, NVRs and IP Cameras can be accessed with **iVMS-4500 application.** The APP can be downloaded from the **APP STORE (iPhone/iPad), PLAYSTORE (Android)**. The app is also available for **WINDOWS MOBILE** devices (Nokia Phones and tablets).

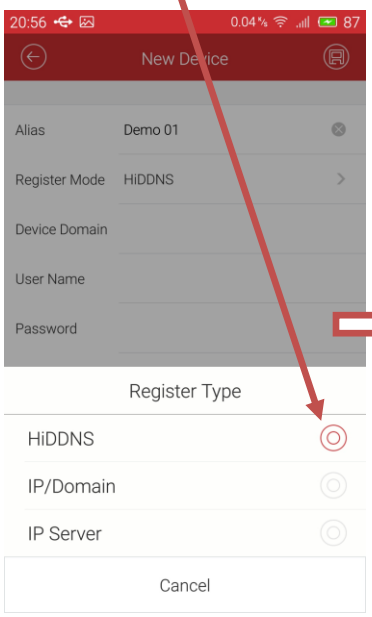
Download the app from the appropriate place and launch it. When the APP is launched for the first time, a tutorial screen will be displayed, and it can be easily skipped.



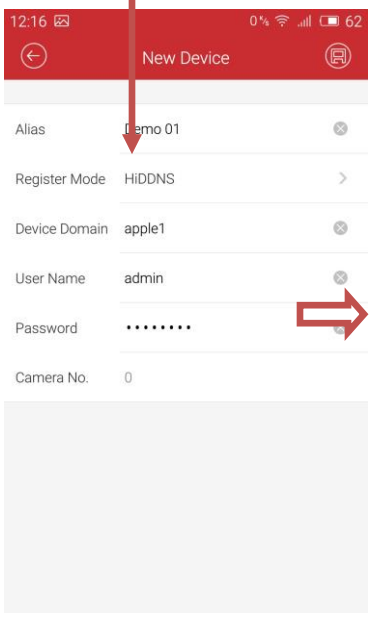

"MENU" BUTTON
DEVICES BUTTON
Live View
Live View
Live View
Remote Playback
Devices
Alarm
Picture & Video
EZVIZ Cloud P2P
Configuration


"ADD" BUTTON
Manual Adding
ENTER THE INFO
"REGISTER MODE"
Devices
Manual Adding
Scan QR Code
Wi-Fi Configuratic
New Device
Alias
Demo 01
Register Mode
IP/Domain
Address
123.123.123.123
Port
8000
User Name
admin
Password
Camera No.
0
New Device
Alias
Demo 01
Register Mode
HiDDNS
Device Domain
User Name
Password
Register Type
HiDDNS
IP/Domain
IP Server
Cancel
Please Note:
If free HikVision DDNS is configured for the device, change the "REGISTER MODE" to HiDDNS

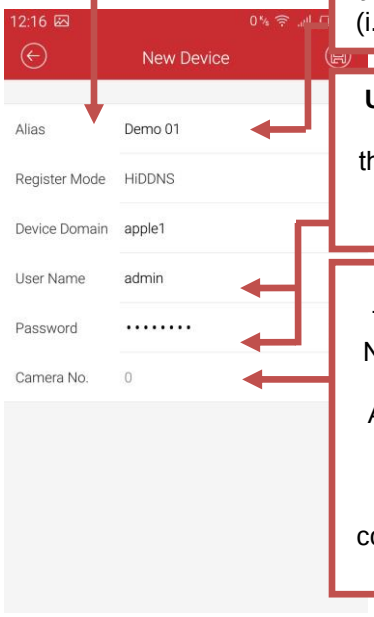
CHANGE THE MODE



ENTER "DEVICE DOMAIN"



COMPLETE THE PAGE

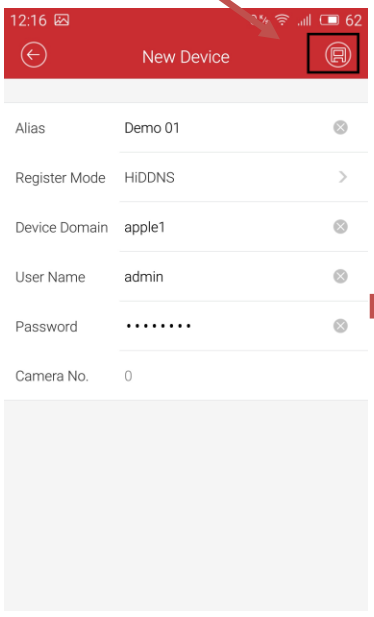


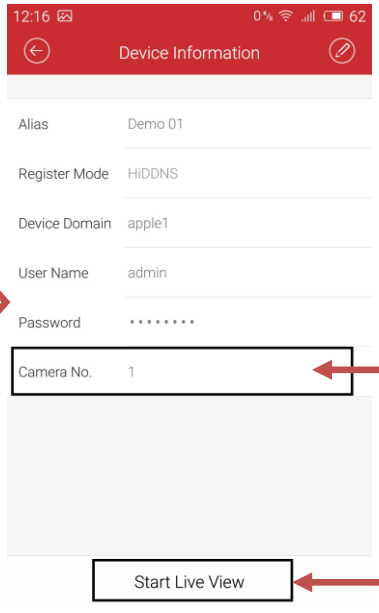
Please Note:
Alias is just a friendly name for the address book (i.e. Home/Office)

User Name and **Password** are the DVR's/NVR's username and password

Please note:
The "CAMERA NUMBER" is set to **1**.
After saving the changes, the number will resemble the correct amount of cameras

"SAVE" BUTTON



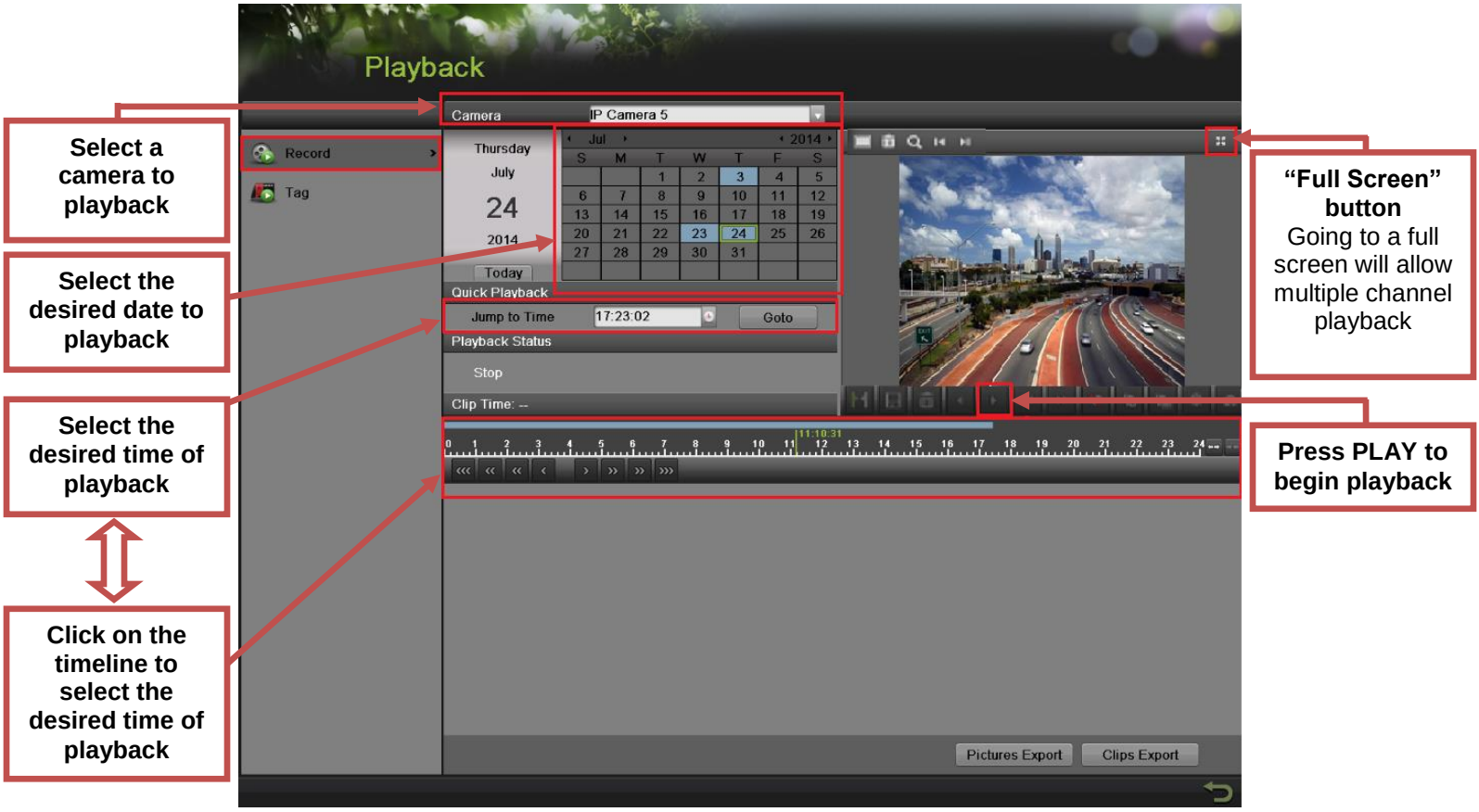


Please note:
The "CAMERA NUMBER" has changed to the correct number of cameras connected to the DVR/NVR

Please note:
"START LIVE VIEW" button will begin live camera stream

10. PLAYING BACK RECORDED VIDEO

To initiate a **PLAYBACK**, go to **“MENU”>”PLAYBACK.”**



Steps to initiate **PLAYBACK**

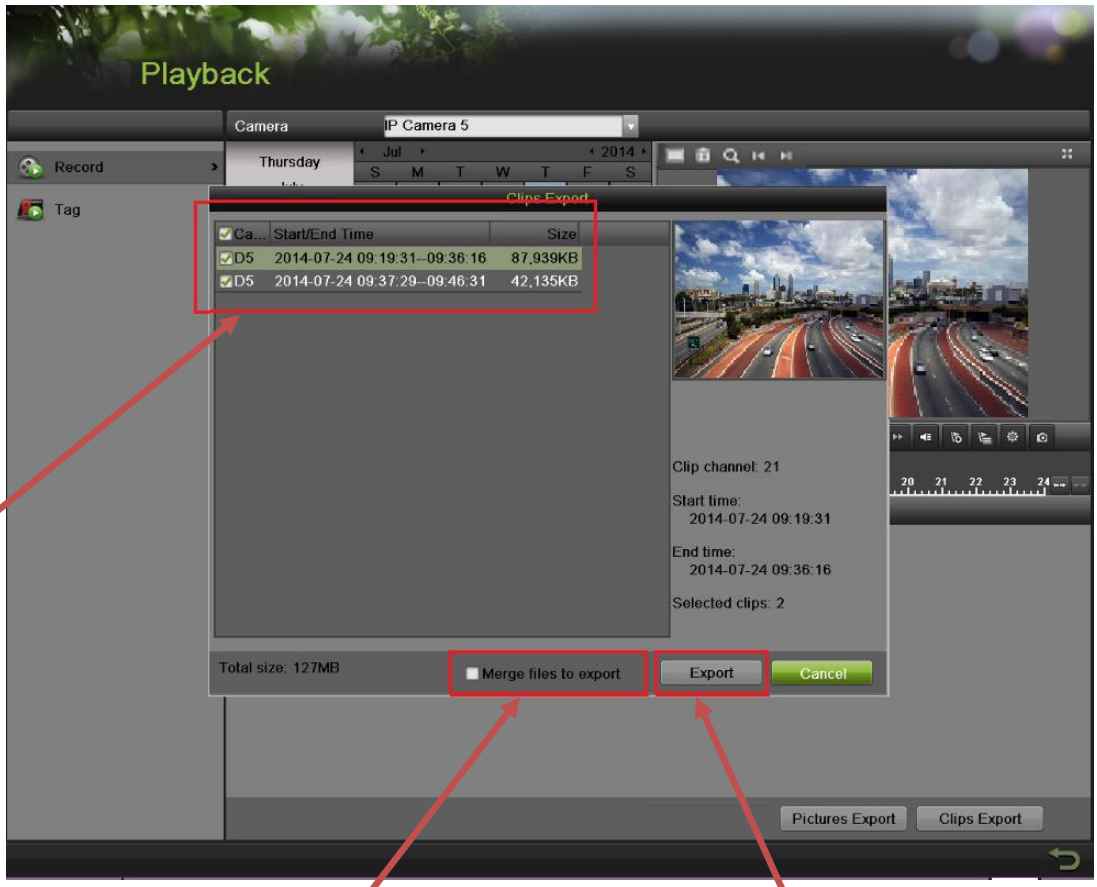
1. Select the desired camera
2. Select the desired date (days that contain recording will be highlighted on the calendar)
3. Select the desired time using the Timeline or “Jump to Time” feature
4. Press “PLAY”

11. MAKING A BACKUP

Steps to make a **BACKUP** of recorded video:

1. Insert a USB FLASH Drive or a USB HDD into an available USB Port
2. Go to **"MENU">"PLAYBACK"**
3. Select the DATE and beginning time of the incident
4. Click **"START CLIPPING"**
5. Select the ending time of the incident
6. Click **"END CLIPPING"** (same button as "Start Clipping")
7. Click **"SAVE CLIP"**
8. Repeat steps 1-7 as many times as required
9. Click **"CLIPS EXPORT"**

After pressing **“CLIPS EXPORT”** a new window opens up containing all saved clips.



10. Select the desired clips
11. Press “EXPORT”
12. After the backup is complete, remove the USB FLASH Drive or the USB HDD